

# EXECUTIVE SUMMARY

## mHealth - Smart Media and Health: Applications Benefiting Life in Space and on Earth

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The theme of the third NASA Human Health and Performance Center (NHHPC) workshop for members was mHealth - Smart Media and Health: Applications Benefiting Life in Space and on Earth. The focus of the event was mobile health applications benefitting not only global and space health issues but also technologies for consumer-driven healthcare mobile access, democratizing health diagnostics, and a variety of smart phone applications. The workshop included keynote speakers and a panel discussion highlighting the need for mobile access technologies for both Earth and space applications (see [Appendix A](#)). The event continued with members participating in multiple breakout sessions in key areas of health- and mobile health-related topics. Members were encouraged to openly discuss technology and policy as they related to the topics of interest. The workshop concluded with a dynamic and interactive keynote address from Todd Park, US Chief Technology Officer.

The breakout sessions were intended to create connections and start conversations across the different NHHPC member organizations and facilitate development of collaborative projects or challenges around health and mobile applications. Mozilla's MoPad was used to capture the summaries of these breakout sessions. The topics for the breakout sessions included:

- Health Care Data Access/Monitoring
- Health Technologies for Smart Phones
- 21<sup>st</sup> Century mHealth Communications for Social Good
- Smart Phone Apps
- Environmental Health Technologies
- FDA Guidelines on Mobile Health

A survey was conducted to assess member expectations and solicit feedback regarding the most (and least) valuable aspects of the event. Of the 70 members who attended the event, 54% of the members who responded represented a government agency, 30% were from industry, 8% were from academia, and 8% were from non-profit organizations. Member feedback will be taken into account and used in future NHHPC event planning.

Overall, the mHealth workshop was considered a success. The 70 members who attended represented 39 different NHHPC member organizations (see [Appendix B](#)) with an additional 20-30 social media enthusiasts, totaling 47 participating organizations. Additionally, participants were invited to interactively participate on Twitter using #NASAhealth, which resulted in over 640 tweets from the day's event and discussions and comments made after the event. Some of the general comments include:

- "mHealth: Smart Media and Health" seems to be a far more diverse event than I normally attend"
- "[#NASAhealth](#) is a great way to close out [#DCInnovation](#) week!"
- "[#NASAhealth @NASAHumanHealth](#) also works to develop wearable data collection devices that has space-earth benefits for flight AND home health"
- "Anyone else completely astounded by all the [#mHealth](#) innovations being shared at [#NASAhealth](#)?"

The feedback received from this and previous NHHPC workshop events indicates that the most valuable aspects were networking with other NHHPC members, especially the opportunity to network with NASA and share ideas. Specifically for this workshop, it was noted that the keynotes, panel, and breakout discussions were extremely valuable and informative. Additionally, 36% of survey responders stated they would commit to a project with the NHHPC, 55% responded "maybe" and only 9% responded "no."

## Conclusions and Recommendations

The summaries from the workshop panel Q&A, breakout sessions, and keynote from Todd Park can be found in the NHHPC mHealth final report and are located on the [NHHPC website](#) along with all presentation materials. The specific recommendations that were identified from this workshop are as follows:

### General Survey/Feedback Results

1. Continue to capture notes and feedback from the NHHPC events and post to the NHHPC website, based on sensitivity of the material.
2. Move the evening reception to the night before the workshop for more participation and greater turnout.
3. Provide more structure to the breakout session facilitators – the breakout sessions differed on structure resulting in some being more interactive than others.
4. Consider adding more panels and/or short presentations.
5. Continue to improve communication of upcoming workshops and options for NASA personnel to participate if unable to travel.
6. Continue to improve communication regarding connections made for NASA to subject matter experts within the Directorate who were unable to attend.

## Appendix A – NHHPC Workshop Agenda



### **mHealth: Smart Media and Health Applications Benefiting Life in Space and on Earth**

Workshop for NASA Human Health and Performance Center Members  
**Kaiser Permanente Center for Total Health**  
700 Second St. NE, near Union Station  
Washington, DC  
June 7, 2012 (7:30 am – 5:10 pm ET)

#### **Networking Reception**

Sponsored by **wyle**  
Immediately following the workshop (5:10 – 7:00 pm ET)

## **Agenda**

Presenter	Topic	Time
<b>Registration</b>		7:30am
Jeff Davis (NASA JSC), Elizabeth Richard (Wyle), Aman Bhandari (HHS), Danielle Cass (Kaiser Permanente)	Welcome	8:00 am
<b>FEATURED KEYNOTE</b>		
Philip Fasano (Kaiser Permanente)	Consumer-driven Health Care: Mobile access for Mobile Patients	8:10 am

Jeff Davis (NASA JSC)	NASA Developments in Mobile Health	8:35 am
<b>PANEL</b>		
Moderator: Jeff Davis (NASA JSC) Panel Members: Ramesh Raskar (NETRA, MIT Media Lab) William Riley (NIH/NHLBI) Todd Schlegel (NASA JSC) Bakul Patel (FDA) Jeff Sutton (NSBRI)	mHealth: Earth and Space Applications	9:00 am
<b>Break</b>		<b>10:30 am</b>
<b>PRESENTATIONS</b>		
Scott Snyder (Mobiquity, Inc.)	Unleashing the Power of Mobile Innovation in Healthcare	10:45 am
Nate Gross (Rock Health)	Innovating in Digital Health	11:15 am
<b>Lunch</b>		<b>11:45 am</b>
<b>BREAKOUT SESSIONS</b>		
Jeff Davis (NASA JSC)	Charge for the Breakout Sessions:	1:15 pm
All	<ul style="list-style-type: none"> <li>Health Care Data Access/Monitoring (Robert Jarrin – Qualcomm Inc)</li> <li>Health Technologies for Smart Phones (Audie Atienza – NIH; David Haddad – Open mHealth)</li> <li>21<sup>st</sup> Century mHealth Communications for Social Good (Scott Ratzan – J&amp;J; Michael Weinberger – J&amp;J; Todd Schlegel – NASA JSC; Carissa Vidlak – Wyle)</li> </ul>	1:20 pm
<b>Break</b>		<b>2:45 pm</b>
All	<ul style="list-style-type: none"> <li>Smart Phone Apps (Mohit Kaushal – West Wireless Health Institute; Felasfa Wodajo – iMedicalApps.com)</li> <li>Environmental Health Technologies (e.g. air) (David Balshaw – NIH/NIEHS)</li> <li>FDA Guidelines on Mobile Health (Megan Moynahan – FDA)</li> </ul>	3:00 pm
<b>FEATURED KEYNOTE</b>		
Todd Park (US CTO)	Innovation and Entrepreneurship in Healthcare	4:30 pm

Jeff Davis (NASA JSC)	Closing Remarks	5:00 pm
<b>NETWORKING OPPORTUNITY</b>		
Tom Anderson (Wyle)	Welcome	5:10 pm

## Appendix B – NHHPC Workshop Participating Organizations (47)

The Advisory Board Company
American Association of Colleges of Pharmacy
Astronauts4Hire
AyDeeKay
Be Well
Biomatrica
Center for Health, Culture and Society
DNA Medicine Institute
CooperSoft
FAA Civil Aerospace Medical Institute
FDA
Futron
Health and Human Services (HHS)
IBM
Idiopathic Intracranial Hypertension – United Kingdom
iMedicalApps.com
Johnson & Johnson
Kaiser Permanente
MEDgle
MIT Media Lab
National Institute of Health
National Library of Medicine
NASA/NESC
NASA
NASA Johnson Space Center
NASA Langley Research Center
National Space Biomedical Research Institute (NSBRI)
NYU School of Medicine
Open mHealth
PepsiCo
Philips
RxmindMe
Qualcomm, Inc.

SolaMed Solutions, LLC
SpaceRef Interactive
The National Center for Human Performance/Texas Medical Center
United States General Services Administration (GSA)
University of California San Francisco School of Medicine
Vital Space Inc, Scripps Translational Science Institute
WebFirst, Inc
West Health Policy Center
West Wireless Health Institute
Woodrow Wilson International Center for Scholars
Wyle
Yet2.com
Zansors, LLC